



Global spread of epidemic dengue: The influence of environmental change

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Abstract:

Dengue/dengue hemorrhagic fever is the most important vector-borne viral disease globally, with over half of the world's population living in areas at risk of infection. Frequent and cyclical epidemics are reported throughout the tropical world, with regular importation of the virus via viremic travelers into both endemic and nonendemic countries. These events coincide with the recently observed global warming that is associated with climate change. Whether these events are coincidental is examined in this article. The history of dengue emergence is traced to determine the major drivers responsible for the spread of both the viruses and mosquito vectors to new geographic regions. We conclude that demographic- and anthropogenic-driven environmental changes, combined with globalization and inefficient public health measures rather than climate change, are the principal driving forces for the re-emergence and spread of epidemic dengue in the past 40 years. These trends are likely to continue given the global trends projected by the United Nations.

Source: <http://dx.doi.org/10.2217/fvl.09.55>

Resource Description

Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Ecosystem Changes, Human Conflict/Displacement, Temperature

Temperature: Fluctuations

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified, Urban

Geographic Location:

resource focuses on specific location

Climate Change and Human Health Literature Portal

Global or Unspecified

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Vectorborne Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type:

format or standard characteristic of resource

Review

Timescale:

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment:

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content